

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): Method for nozzle jetting of oxygen into a synthesis reactor, e.g. for oxi-dehydration, with mainly radial flow of ~~the a~~ gas mixture through a ~~catalyser~~ catalyzer packing, wherein oxygen is added to a ring distributor system in pure form, as air or mixed with inert gas or water ~~vapour vapor~~, and is then jetted from the ring distributor system directly on to the catalyser catalyzer surface at an angle to the vertical through several exit openings in the ring distributor system, wherein the oxygen and the gas mixture first begin mixing immediately preceding entry to the catalyzer packing, after the oxygen is jetted from the ring distributor system, and wherein the nozzle jetting of the oxygen is carried out from the cylindrical plane in the interior of the catalyzer bed in the direction towards the reactor wall.

Claim 2 (Canceled).

Claim 3 (Previously Presented): Method as claimed in claim 1, wherein the nozzle jetting is carried out with the help of several parallel pipes having exit openings and forming a cylindrical inner axial plane.

Claim 4 (Currently Amended): Method as claimed in claim 1, wherein the nozzle jetting of the oxygen takes place in a cylindrical axial plane approx. 50 to 300 mm before the cylindrical inner wall of the ~~catalyser~~ catalyzer bed, which ensures an oxygen dwelling time of \leq 1 sec. in a chamber before the ~~catalyser~~ catalyzer bed.

Claim 5 (Currently Amended): Device for nozzle-jetting of oxygen into a synthesis reactor, e.g. for oxi-dehydration with mainly radial flow of the gas mixture to a ~~catalyser~~ catalyzer packing, particularly for conducting a method as claimed in claim 1, wherein there is a ring distributor with several pipes +7) with exit openings +6), wherein the several pipes together forming form an inner cylindrical plane before the cylindrical inner surface of the ~~catalyser~~ catalyzer bed, whereby the exit openings +6) are aligned to release the oxygen on to the cylindrical ~~catalyser~~ catalyzer surface at an angle to the

vertical.

Claim 6 (Currently Amended): Device as claimed in claim 5, wherein the gas exit openings †6† are aligned in alternating sequence to adjacent exit openings of an adjacent ring pipe.

Claim 7 (Currently Amended): Device as claimed in claim 5, wherein adjacent exit gas openings †6† reveal different flow exit directions.

Claim 8 (Currently Amended): Device as claimed in claim 5, wherein the gas exit openings †6† are designed as holes or nozzles.